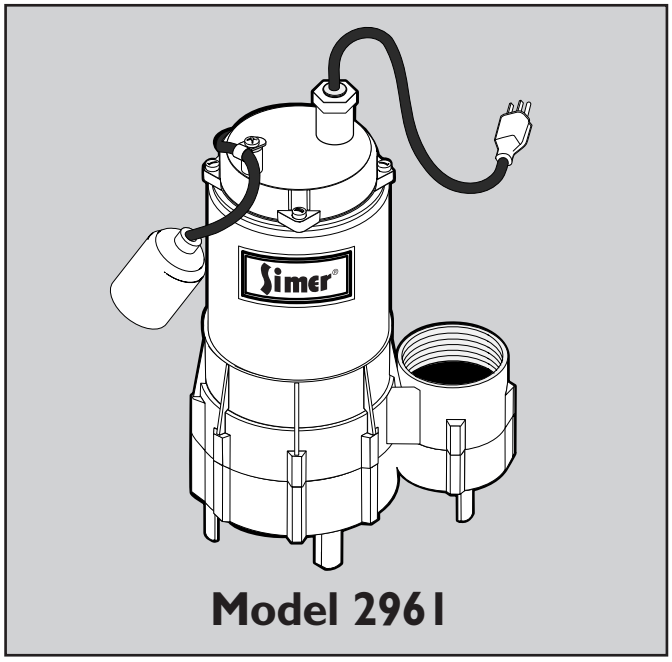
293 Wright St., Delavan, WI 53115
Phone: 1-800-468-7867
1-800-546-7867
Fax: 1-800-390-5351

OWNER'S MANUAL
Submersible Solids Handling Pumps

NOTICE D'UTILISATION
Pompes submersibles pour les matières solides

MANUAL DEL USUARIO
Bombas submergibles para el manejo de líquidos con sólidos



Model 2961

Installation/Operation/Parts

For further operating, installation, or maintenance assistance:

Call 1-800-468-7867

English . . . . . **Pages 2-6**

Installation/Fonctionnement/Pièces

Pour plus de renseignements concernant l'utilisation, l'installation ou l'entretien,

Composer le 1 (800) 468-7867

Français . . . . . **Pages 7-11**

Instalación/Operación/Piezas

Para mayor información sobre el funcionamiento, instalación o mantenimiento de la bomba:

Llame al 1-800-468-7867

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1000000854 (Rev. 5/25/05)

READ AND FOLLOW SAFETY INSTRUCTIONS!

⚠ **This is the safety alert symbol.** When you see this symbol on your pump or in this manual, look for one of the following signal words and be alert to the potential for personal injury:

⚠ DANGER warns about hazards that **will** cause serious personal injury, death or major property damage if ignored.

⚠WARNING warns about hazards that **can** cause serious personal injury, death or major property damage if ignored.

⚠ CAUTION warns about hazards that **will** or **can** cause minor personal injury or property damage if ignored.

The label **NOTICE** indicates special instructions which are important but not related to hazards.

Carefully read and follow all safety instructions in this manual and on pump.

Keep safety labels in good condition.
Replace missing or damaged safety labels.

1. Read this manual carefully. Failure to follow these Instructions could cause serious bodily injury and/or property damage.
2. Check your local codes before installing. You must comply with their rules.
3. Vent sewage or septic tank according to local codes.
4. Do not install pump in any location classified as hazardous by National Electrical Code, ANSI/NFPA 70-1990.

⚠WARNING Hazardous voltage, Can shock, burn or cause death. During operation, the pump is in water. To avoid fatal shocks, proceed as follows if pump needs servicing:

⚠WARNING Risk of electrical shock. Can burn or kill. Do not lift pump by power cord. See "Cord Lift Warning" on Page 5.

5A. Disconnect power to outlet box before unplugging pump.
5B. Take extreme care when changing fuses. Do not stand in water or put your finger in fuse socket.
5C. Do not modify cord and plug. When using cord and plug, plug into a grounded outlet only. When wiring to a system control, connect pump ground lead to system ground.
6. Do not run pump dry. Dry running can overheat pump, (causing burns to anyone handling it) and will void warranty.
7. Pump normally runs hot. To avoid burns when servicing pump, allow it to cool for 20 minutes after shut-down before handling it.
8. In normal service, motor should not need oiling. Motor has been filled at the factory with a special oil.

NOTICE: This unit is not designed for applications involving salt water or brine! Use with salt water or brine will void warranty.

Simer Limited Warranty

SIMER warrants to the original consumer purchaser ("Purchaser") of its products that they are free from defects in material or workmanship.

If within twelve (12) months from the date of the original consumer purchase any such product shall prove to be defective, it shall be repaired or replaced at SIMER's option, subject to the terms and conditions set forth below. Your original receipt of purchase is required to determine warranty eligibility.

Exceptions to the Twelve (12) Month Warranty

Five (5) Year Warranty:

If within five (5) years from original consumer purchase any Pre-Charge water system tank shall prove to be defective, it shall be repaired or replaced at SIMER's option, subject to the terms and conditions set forth below.

General Terms and Conditions

Purchaser must pay all labor and shipping charges necessary to replace product covered by this warranty. This warranty shall not apply to acts of God, nor shall it apply to products which, in the sole judgement of SIMER, have been subject to negligence, abuse, accident, misapplication, tampering, alteration; nor due to improper installation, operation, maintenance or storage; nor to other than normal application, use or service, including but not limited to, operational failures caused by corrosion, rust or other foreign materials in the system, or operation at pressures in excess of recommended maximums.

Requests for service under this warranty shall be made by returning the defective product to the Retail outlet or to SIMER as soon as possible after the discovery of any alleged defect. SIMER will subsequently take corrective action as promptly as reasonably possible. No requests for service under this warranty will be accepted if received more than 30 days after the term of the warranty.

This warranty sets forth SIMER's sole obligation and purchaser's exclusive remedy for defective products.

SIMER SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, OR CONTINGENT DAMAGES WHATSOEVER.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL NOT EXTEND BEYOND THE DURATION OF THE APPLICABLE EXPRESS WARRANTIES PROVIDED HEREIN.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

SIMER • 293 Wright St. • Delavan, WI U.S.A. 53115
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PERFORMANCE

	GPH (LPH) AT DISCHARGE FT. OF HEAD				
Model	**5 (1.5m)**	**10 (3m)**	**15 (4.6m)**	**20 (6.1m)**	**25 (7.6m)**
2961	3900(14,763)	2550(9,653)	960(3,634)	0	–

INSTALLATION

NOTICE: Install pump on a hard, level surface (cement, asphalt, etc.). Never place pump directly on earth, clay or gravel surfaces.

Piping – Effluent Applications (3/4" or Less Solids)

Piping must be 1-1/2" minimum to carry volume of pump discharge. Check local codes to determine if a check valve is required in your system. In cold climates, check valves are not used to prevent effluent from freezing in piping.

If using as a sump pump, a check valve is recommended.

Piping – Sewage Applications (2" or Less Solids)

In any case, piping must not be smaller than pump discharge.

When installed in a sewage system, pipe must be capable of handling semi-solids of at least 2" (5.1 cm) diameter.

The rate of flow in the discharge pipe must keep any solids present in suspension in the fluid. To meet minimum flow requirements (2 feet (.6 m) per second in discharge line), size pipe as follows:

A Pipe Size Of:	Will Handle a Flow Rate Of:
1-1/2" (3.8 cm)	12 GPM (45 LPM)
2" (5.1 cm)	21 GPM (80 LPM)
2-1/2" (6.3 cm)	30 GPM (114 LPM)
3" (7.6 cm)	48 GPM (182 LPM)

Use a 2" (5.1 cm) swing check valve in pump discharge to prevent backflow of liquid into sump basin. Check valve should be a free flow valve that will easily pass solids.

NOTICE: For best performance of check valve when handling solids, do not install it with the discharge pipe angled more than 45° above the horizontal. Do not install check valve in a vertical position as solids may settle in valve and prevent the check valve from opening on startup.

Drill a 3/16" (4.7mm) hole in discharge pipe about 1"-2" (2.5 - 5.1cm) above pump discharge connection (but below check valve) to prevent airlocking the pump.

ELECTRICAL

⚠WARNING Hazardous voltage. Can shock, burn, or cause death. When installing, operating, or servicing this pump, follow safety instructions listed below.

Step 1. DO NOT splice the electrical power cord.

Step 2. DO NOT allow electrical cord plug to be submerged.

Step 3. DO NOT use extension cords. They are a fire hazard and can reduce voltage sufficiently to prevent pumping and/or damage motor.

Step 4. DO NOT handle or service pump while it is connected to power supply.

Step 5. DO NOT remove grounding prong from plug or modify plug.To protect against electrical shock, the power cord is a three-wire conductor and includes a 3-prong grounded plug. Plug pump into a 3-wire, grounded, grounding-type receptacle. Connect pump according to electrical codes that apply.

For automatic operation, plug or wire pump into an automatic float switch or pump controller. Pump will run continuously when plugged directly into an electrical outlet. Connect or wire pump to an individual branch circuit with no other outlets or equipment in the circuit. Size fuses or circuit breakers according to chart below.

⚠WARNING Risk of electrical shock and fire. Can cause severe personal injury, property damage or death. Be sure that power supply information (Voltage/ Hertz/Phase) on pump motor nameplate matches incoming power supply exactly. Install pump according to all electrical codes that apply**.**

Model	H.P.	Voltage	Individual Branch Circuit Required (Amps)	Dual Element Time Delay Fuse Amps
2961	4/10	115	15	10

OPERATION AND INSTALLATION

NOTICE: Do not allow pump to run in a dry sump. It will void the warranty and may damage the pump.

An automatic overload protector in the motor will protect motor from burning out due to overheating/overloading. When motor cools down, overload protector will automatically reset and start motor.

If overload trips frequently, check for cause. It could be a stuck impeller, wrong/low voltage, or electrical failure in motor. If an electrical failure in the motor is suspected, have it serviced by a competent repairman.

Pump is permanently lubricated. No oiling or greasing is required.

GENERAL

⚠WARNING Hazardous voltage. Can shock, burn, or cause death. Before removing pump from basin for service, always disconnect electrical power to pump and control switch.

⚠WARNING Risk of electrical shock. Can burn or kill. Do not lift pump by the power cord.

Submerge pump in a disinfectant solution (chlorox or chlorine) for at least one hour before disassembling pump.

The pump motor contains a special lubricating oil which should be kept clean and free of water at all times.

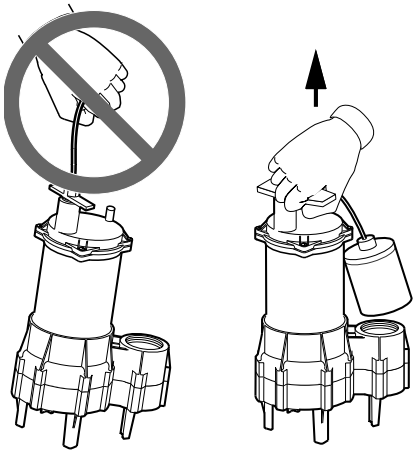
⚠WARNING **Risk of sudden starts. Can result in an electrical shock and pinching of hands or fingers.** If the power is on to the pump when the thermal overload resets, the pump may start without warning. Disconnect the power before servicing the pump.

A. Pump fails to operate:	1. Check to be sure that power cord is securely plugged into outlet. Disconnect power to outlet before handling pump or motor. 2. Check to be sure you have electrical power. 3. Check that liquid fluid level is high enough to activate switch or controller. 4. Check to be sure that 3/16" (4.7 mm) vent hole in discharge pipe is not plugged. 5. Check for blockage in pump inlet, impeller, check valve or discharge pipe. 6. Thermal overload may have tripped. Test start pump; if it starts and then stops immediately, disconnect from power source for 30 minutes to allow motor to cool, then reconnect to power source. Check for cause of overheating/overloading.
B. Pump fails to empty sump:	1. Be sure all valves in discharge valve are fully open. 2. Clean out discharge pipe and check valve. 3. Check for blockage in pump inlet or impeller. 4. Pump not sized properly. A higher capacity pump may be required.
C. Pump will not shut off:	1. Check switch or controller automatic floats for proper operation and location. See installation instructions for switch/controller. 2. If pump is completely inoperative or continues to malfunction, consult your local serviceman.

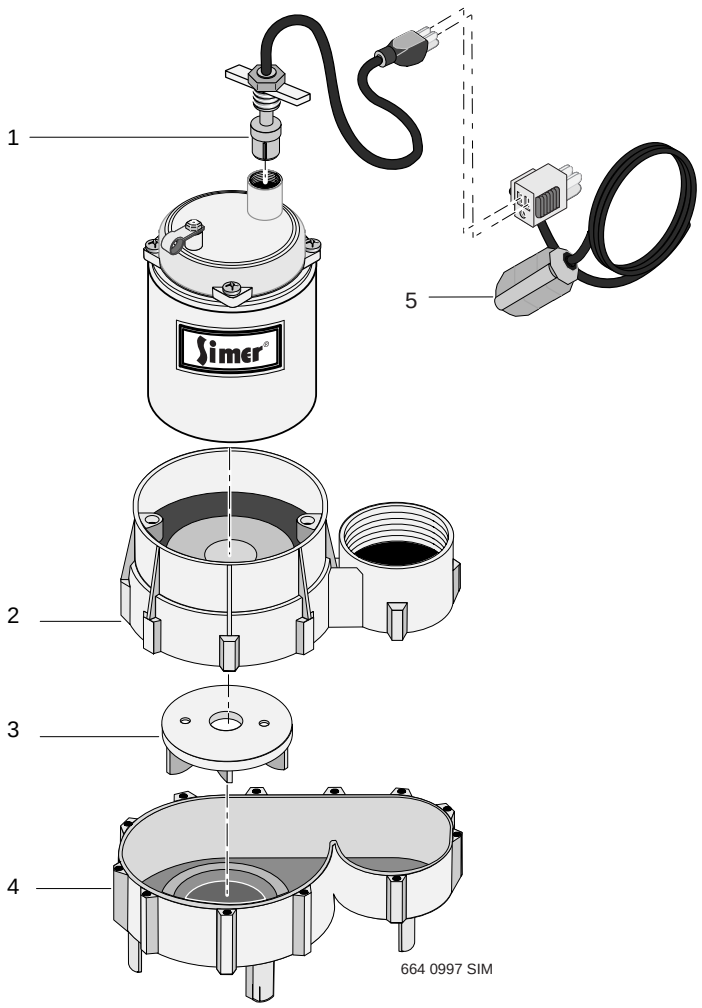
CORD LIFT WARNING

⚠WARNING

Risk of electrical shock.
Can burn or kill.
Do not lift pump by power cord.



1. Attempting to lift or support pump by power cord can damage cord and cord connections.
2. Cord may pull apart, exposing bare wires with possibility of fire or electrical shock.
3. Lifting or supporting pump by power cord will void warranty.
4. Use lifting ring or handle on top of pump for all lifting/lowering of pump. Disconnect power to pump before doing any work on pump or attempting to remove pump from sump.



Key No.	Part Description	Qty.	2961 115 Volt
1	Power Cord Assembly	1	PS117-54-TSE
2	Upper Volute	1	PW1-10P
3	Impeller	1	PW5-15P
4	Lower Volute	1	PW1-11P
5	Automatic Float Switch	1	PS117-144P

IF THE MOTOR FAILS, REPLACE THE PUMP.